

ABSTRACT

GLASS COMPOSITION THAT EMITS FLUORESCENCE IN INFRARED WAVELENGTH REGION

5

The present invention provides a glass composition that exhibits a fluorescence function and an optical amplification function in a wide wavelength range. This glass composition includes a bismuth oxide, an aluminum oxide, and a glass network former. The glass network former 10 includes an oxide other than silicon oxides as its main component. The glass composition emits fluorescence in an infrared wavelength region through irradiation of excitation light, with bismuth contained in the bismuth oxide functioning as a fluorescent source. A preferable glass network former is B_2O_3 or P_2O_5 . This glass composition further may contain a univalent or 15 divalent metal oxide.